

A NEW *QUEDIUS* (*MEGAQUEDIUS*)
SPECIES FROM MEXICO
(COLEOPTERA, STAPHYLINIDAE)

(96th contribution to the knowledge of Staphylinidae)

A. SMETANA

Biosystematics Research Institute, Research Branch,
Agriculture Canada, Ottawa, Ontario K1A 0C6

ABSTRACT

Quedius (*Megaquedius*) *martini* spec. nov., from rodent burrows in the state of Durango, Mexico, is described and illustrated. A key to all known species of the subgenus *Megaquedius* Casey is given.

A small series of a *Megaquedius* species was found among the beetles collected by H. F. Howden and J. E. H. Martin, in the burrows of the geomyid rodent, *Thomomys umbrinus*. The specimens resembled individuals of *Quedius* (*Megaquedius*) *explanatus* LeC., but comparison with that species and all other known species of the subgenus showed that they were new. Several new *Aphodius* species have already been described from these burrows (Gordon & Howden 1973). The new species described below is the first representative of the subgenus *Megaquedius* known from Mexico.

Quedius (*Megaquedius*) *martini* Smetana, **new species**

Uniformly piceous-black to black; palpi dark brownish to piceous-black, antennae slightly paler apically, legs piceous to piceous-black. Head about as wide as pronotum at apical margin; of a rounded quadrangular shape, slightly wider than long (index 70:60), moderately dilated behind eyes; eyes rather small, flat, temples much longer than length of eyes seen from above (index 34:16); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated distinctly closer to posterior margin of eye than to posterior margin of head; 2 fine punctures between posterior frontal puncture and posterior margin of head, situated near posterior margin; temples with numerous punctures and setae. Surface of head covered with dense microsculpture consisting of isodiametric meshes with intermixed fine punctures. Antennae distinctly narrowed towards apex, not differing from those of *explanatus*. Pronotum transverse (index 92:75); with explanate lateral portions; lateral margins slightly arcuate and moderately narrowed anteriorly; front angles slightly extended; basal margin evenly arcuate; dorsal rows each with 3 fine punctures; sublateral rows reduced and consisting only of 2 punctures near apical margin of pronotum. Surface of pronotum with similar microsculpture as on head, but both microsculpture and intermixed punctures finer, areolae of microsculpture showing more or less distinct tendency to become elongate; intermixed punctures sometimes hardly noticeable. Scutellum covered with fine microsculpture, punctate in apical part. Elytra moderately long, at base slightly narrower than pronotum, at sides longer (index 82:75); at suture indistinctly shorter (index 71:75) than

pronotum at midline; punctation and pubescence dense, about same as in *explanatus*. First 3 visible tergites of abdomen slightly impressed at base, punctation and pubescence of tergites slightly finer and denser than on elytra, more or less evenly covering tergal surface.

MALE: Sixth sternite with obtuse triangular emargination in middle of apical margin; small triangular area before emargination slightly impressed and smooth. Aedeagus essentially of same shape as in *explanatus* but smaller; median lobe shorter and wider, apically more suddenly narrowed, apical part less distinctly hooked in lateral view; paramere wider and distinctly shorter, narrowly and rather deeply bifurcate, bifurcate apical part bearing several bristles; 2 sensory tubercles on each side of apical bifurcation (Fig. 1-4).

Length 12.0 to 14.0 mm.

TYPE MATERIAL: holotype male: MEXICO: Durango, 10 mi W El Salto, 9000', 14-VI-64, H. F. Howden, and J. E. H. Martin. Allotype female: same data as holotype; both in the Canadian National Collection, Ottawa (CNC No. 13362).

Paratypes: 1 male and 1 female, same data as holotype except 4-VI-64 and 26-VI-64 (CNC).

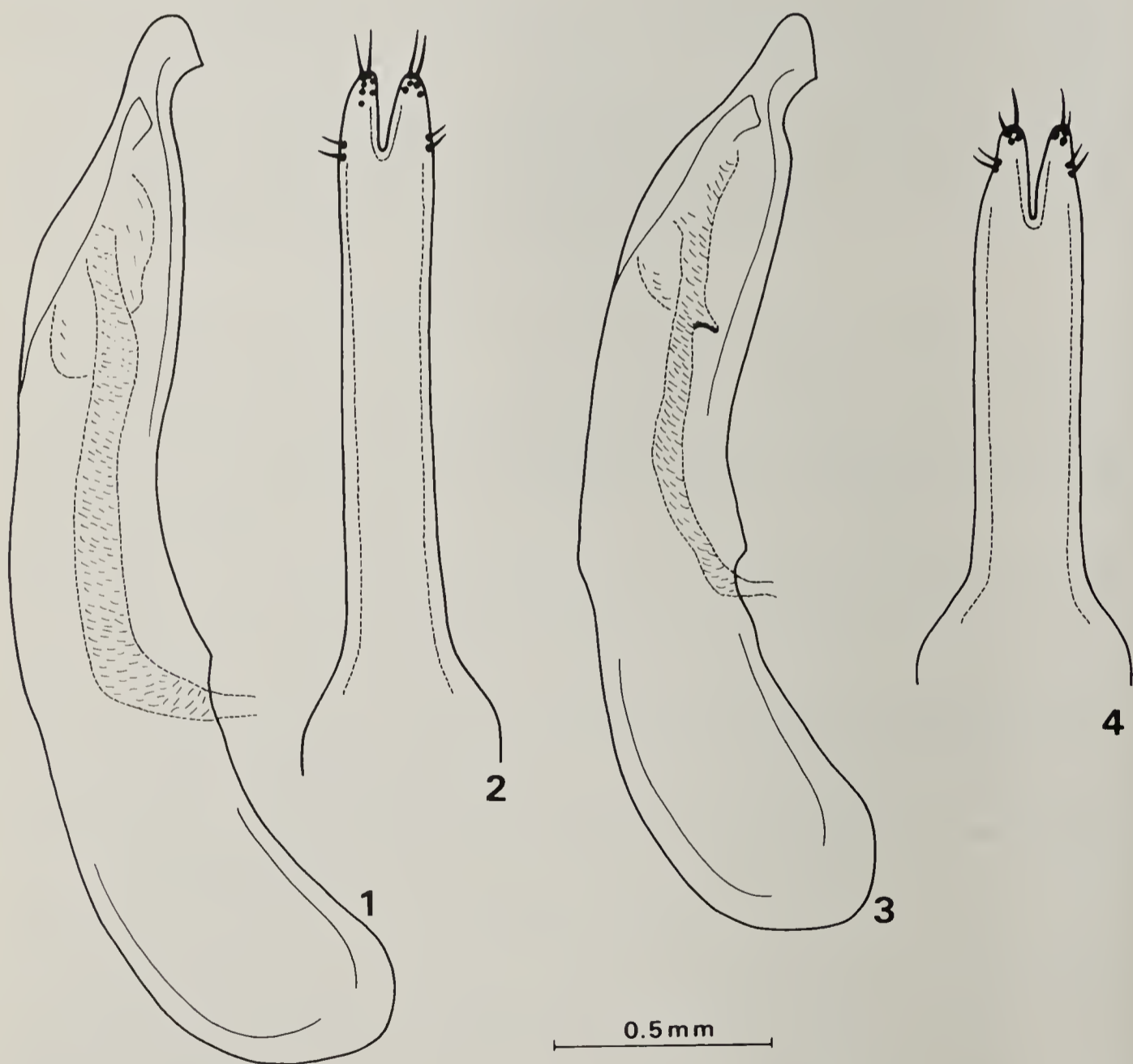


Fig. 1-2: *Quedius explanatus* LeC. 1) aedeagus, lateral view; 2) underside of paramere (Arizona, Chiricahua Mts., Rustler Park). 3-4: *Quedius martini* 3) aedeagus, lateral view; 4) underside of paramere (holotype).

DISTRIBUTION: At present the species is known only from the state of Durango, but it is probably more widely distributed in the montane regions of northern Mexico.

BIONOMICS: All specimens were found in the burrows of the geomyid rodent *Thomomys umbrinus*. The female paratype was found in the pupal stage, and emerged later in the laboratory.

DISCUSSION: The species closely resembles *explanatus*, but it can be distinguished, in addition to the differences in the male copulatory organ, by the following characters: average size smaller, shape narrower, less robust; male of "small type" (see Smetana 1971:4; 1973:1422) not differing in shape of head and pronotum from the female; head and pronotum narrower, latter less conspicuously explanate laterally, microsculpture of head and pronotum finer and less dense, surface therefore more shiny; punctuation of elytra slightly finer.

It differs from *manitobensis* (Csy.) by the different shape of the male copulatory organ, especially of the paramere (see Smetana 1971:42, 47, 285 Fig. 66), and externally by the characters given for *explanatus* except for microsculpture.

The fact that presently only small type males are known may not be significant. As in the case of *Q. validus* Smet. (Smetana 1973:1422), large males may be found later.

The female paratype reared in the laboratory from the pupa is immature. In the male paratype both antennae are missing except for 3 segments on the left side and 1 segment on the right side.

The species is named in honor of Mr. J. E. H. Martin, Biosystematics Research Institute, Ottawa, who collected, together with Dr. H. F. Howden, the original specimens.

The following modified key (see Smetana 1971, 1973) can be used to distinguish all known species of the subgenus *Megaquedius*:

- 1(6). Microsculpture of disc of pronotum consisting of meshes which are either isodiametric or more or less elongate.
- 2(3). Paramere very narrow and elongate (Fig. 1, 2). Microsculpture on head and pronotum very dense and deep, surface of head and pronotum therefore opaque. Length 11.5 to 21.0 mm. Western United States east to western Missouri .. *Q. explanatus* LeC.
- 3(2). Paramere wider and shorter (Fig. 4). Microsculpture on head and pronotum more or less dense but finer and/or superficial, surface of head and pronotum therefore slightly shiny.
- 4(5). Paramere dilated apically (Fig. 66, in Smetana 1971). Pronotum decidedly transverse (index 100:75) with lateral portions strongly explanate, punctuation of elytra coarser.
- 5(4). Paramere not dilated apically (Fig. 4). Pronotum less transverse (index 92:75) with lateral portions only moderately explanate, punctuation of elytra finer. Length 12.0 to 14.0 mm. Mexico (Durango) *Q. martini* spec. nov.
- 6(1). Microsculpture on disc of pronotum consisting of irregular waves, definitely not forming meshes.
- 7(8). Aedeagus as in Fig. 67 (Smetana 1971) and Fig. 4, 5 (Smetana 1973). Antennae shorter, middle and outer segments about as long as wide. Basal margin of pronotum more or less bisinuate. Elytra moderately long, at sides longer than pronotum at midline (index 84:70). Length 13.0 to 19.0 mm. California *Q. validus* Smet.

- 8(7). Aedeagus as in Fig. 1-3 (Smetana 1973). Antennae longer, middle and outer segments slightly longer than wide. Basal margin of pronotum almost evenly arcuate. Elytra rather short, at sides about as long as pronotum at midline (index 85:87). Length 18.0 mm. Washington..... *Q. syphax* Smet.

LITERATURE CITED

- GORDON, R. D., and H. F. HOWDEN. 1973. Five new species of Mexican *Aphodius* (Coleoptera: Scarabaeidae) associated with *Thomomys umbrinus* (Geomyidae). Ann. Ent. Soc. Amer. 66:436-443.
- SMETANA, A. 1971. Revision of the tribe Quediini of America north of Mexico (Coleoptera: Staphylinidae). Mem. Ent. Soc. Canada 79:VI+303 p.
- SMETANA, A. 1973. Revision of the tribe Quediini of America north of Mexico (Coleoptera: Staphylinidae). Supplementum 2. Canadian Ent. 105:1421-1434.



COLOR STANDARDS

The Color Standards Committee of The Coleopterists Society has been working toward the possible production of a color standards publication (see discussion in the Minutes of the 1974 annual meeting). The committee wishes to obtain as much input as possible, and to determine interest and potential sales. Would you be interested in such a volume for \$5 to \$10? Please let the committee know if you might be interested and any other ideas you might have. Send to: **Dr. Howard Frank**, Florida Medical Entomology Laboratory, Division of Health, P. O. Box 520, Vero Beach, Florida 32960.

